

PART V

Crops

Major Crops

Farming in Lincoln County is specialized, being predominantly dependent on two crops: wheat and barley. Almost all the cropland is in these cash grain crops. Wheat is dominant, being harvested from 278,200 acres in 1958. In 1954 at the time of the U. S. Census, wheat was cut from 287,000 acres which represented over 75 percent of the harvested cropland. The second major crop has been barley in the last few years. A total of 74,506 acres of barley for grain was harvested during 1954. This represented nearly 18 percent of the harvested cropland. A total of 122,200 acres of barley was harvested in 1958. Alfalfa has been the third major crop in the county. Oats usually are fourth in importance. A sizable amount of wild hay and grain hay is harvested each year. Minor crops are rye, timothy and clover grown as a mixture for hay and dry field and seed peas.

Total Acres of Land Harvested, 1954
421,514 Acres

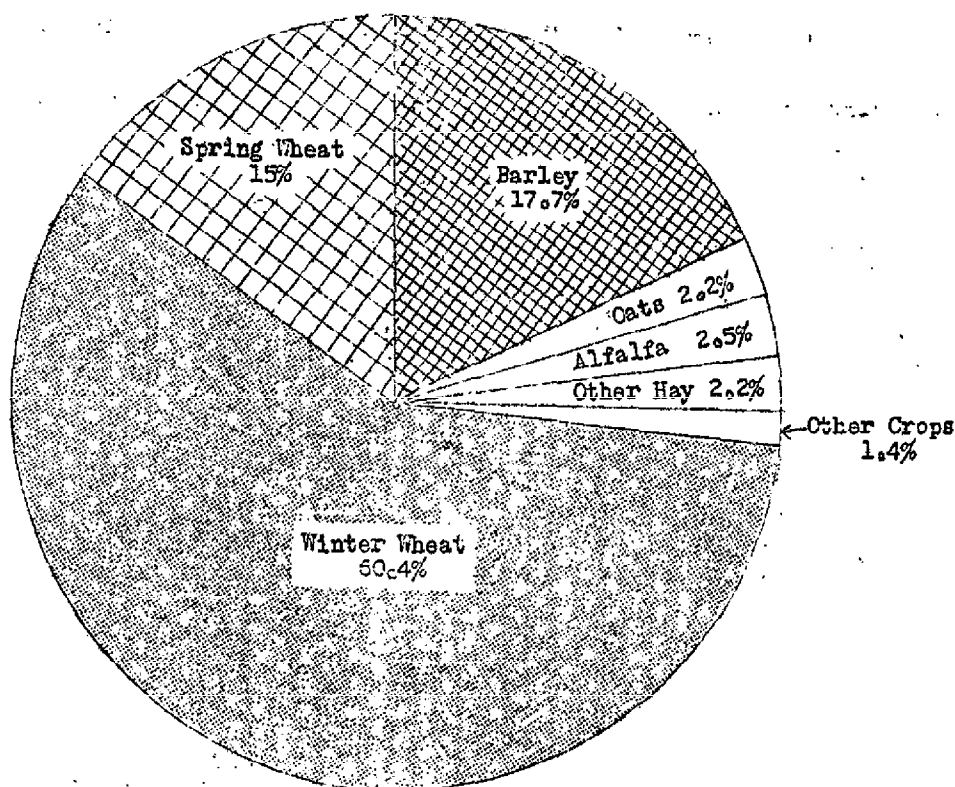


Figure 9.-- Percent of Total Cropland in Leading Crops
Lincoln County, 1954
(Based on U.S. Census of Agriculture, 1954)

Crop Trends

The crop history of a region reflects economic changes occurring within it. Both hay and grain crops have had rising trends since 1939. Increase in grain acreage was much greater than that of hay. In 1954, wheat, barley, alfalfa and oats were harvested from 407,910 acres or 86.7 percent of the cropland. As cropland was expanded, more wheat, barley, alfalfa and oats were planted. Since 1954 the composition of the crops of the county has changed markedly because of the Federal Acreage Allotment Program. Wheat acreage has gone down and barley, oats, rye and alfalfa have been substituted on land taken out of wheat. Better hay crops, particularly alfalfa, have also become more important in recent years, being associated with increased livestock farming.

Wheat Farming

Lincoln County is the second most important wheat producing county in Washington and also ranked second in the United States in 1954. Throughout the county's history the most important crop has been wheat. Grown on the dry-lands of the Big Bend region, it was the first important commercial crop grown by the pioneer farmers. The summer-fallow, dry-farming system is widely used in wheat growing. Some 895 farms reported 392,000 acres of cultivated summer fallow during 1954. Most of this was used in wheat farming. Winter wheat is sown in the fall to take advantage of winter moisture and protective snow cover. Heavier and more reliable yields are obtained through this system.

Table 17.- Wheat and Barley: Acreage, Yield and Production
Lincoln County, 1939-1958

Year	All Wheat			Barley		
	Acreage (acres)	Yield (bushels per acre)	Production (bushels)	Acreage (acres)	Yield (bushels per acre)	Production (bushels)
1939	330,000	21.0	6,921,000	3,280	27.5	90,300
1940	350,000	17.0	6,120,000	11,400	20.0	227,900
1941	350,000	26.5	9,268,100	11,500	34.0	391,000
1942	279,000	33.7	9,394,800	37,000	40.0	1,479,500
1943	329,600	29.0	9,568,000	23,500	36.0	846,000
1944	373,700	27.0	10,076,000	10,200	38.5	392,600
1945	410,800	28.3	11,621,200	6,100	36.0	219,600
1946	420,000	32.5	13,648,200	3,100	39.0	120,900
1947	407,000	26.1	10,622,000	2,600	27.5	71,500
1948	400,000	25.3	11,998,000	2,600	30.0	78,000
1949	400,000	25.3	10,102,000	2,240	22.0	49,300
1950	370,000	33.5	12,396,000	29,000	35.0	1,015,000
1951	420,000	29.2	12,271,000	4,000	32.5	130,000
1952	427,000	27.6	11,804,200	3,000	36.5	109,500
1953	422,200	33.4	14,100,500	4,800	40.0	192,000
1954	316,200	33.4	10,551,700	76,000	41.0	3,116,000
1955	279,200	29.8	8,311,200	98,000	25.0	2,450,000
1956	284,000	29.6	8,414,800	111,600	33.8	3,730,000
1957	258,500	42.7	11,042,700	139,800	47.0	6,570,600
1958	278,200	42.1	11,717,500	122,200	33.2	4,056,700

Source: U.S.D.A., AMS, Agric. Estimates Division
State of Washington

Table 18.-- Spring Wheat and Winter Wheat
Lincoln County, 1939-1958

Year	Spring Wheat			Winter Wheat		
	Acreage (acres)	Yield (bushels per acre)	Production (bushels)	Acreage (acres)	Yield (bushels per acre)	Production (bushels)
1939	192,000	18.9	3,633,000	138,000	23.8	3,288,000
1940	327,000	16.6	5,427,000	33,000	21.0	693,000
1941	105,000	21.0	2,205,000	245,000	28.8	7,063,100
1942	66,000	31.6	2,082,500	213,000	34.3	7,312,300
1943	213,600	27.1	5,795,000	116,000	32.5	3,773,000
1944	216,800	23.9	5,186,100	156,900	31.2	4,889,900
1945	185,000	25.0	4,625,000	225,800	31.0	6,996,200
1946	31,600	26.3	831,000	388,400	33.0	12,817,200
1947	103,000	24.3	2,505,000	304,000	26.7	8,117,000
1948	30,000	25.0	750,000	370,000	30.4	11,248,000
1949	15,000	19.0	285,000	385,000	25.5	9,817,000
1950	41,000	25.5	1,045,500	329,000	34.5	1,135,500
1951	47,000	23.0	1,081,000	373,000	28.8	11,190,000
1952	38,000	24.0	912,000	389,000	28.0	10,892,200
1953	126,800	28.5	3,613,800	295,400	35.5	10,486,700
1954	36,200	28.5	1,031,700	280,000	34.0	9,520,000
1955	7,200	21.0	151,200	272,000	30.0	8,160,000
1956	115,700	32.0	3,702,400	168,300	28.0	4,712,400
1957	11,200	36.5	408,800	247,300	43.0	10,633,900
1958	11,400	21.5	245,100	266,800	43.0	11,472,400

Source: U.S.D.A., AMS, Agric. Estimates Division
State of Washington

In 1954 almost 75 percent of the cropland was devoted to wheat, most of which was fall seeded. According to 1958 estimates of the Washington Crop and Livestock Reporting Service, a total of 278,200 acres yielded 11,717,500 bushels, or 42.1 bushels per acre. Only 12,400 acres was spring planted. Production since 1939 has ranged from a low of 6,120,000 bushels in 1940 to a high of 14,100,500 bushels in 1953. Variations in climatic conditions and fertilization practices have resulted in yields varying from a low of 17 bushels per acre in 1940 to a peak of 42.1 bushels per acre in 1958. Wheat yield has averaged over 30 bushels per acre in recent years. Sharp acreage declines occurred in 1954 and 1955 as a result of the Federal Acreage Allotment program.

While both spring and winter wheat are planted, winter wheat is generally preferred. Since 1945 acreage planted to winter wheat has been much greater than spring wheat on the average. In most years fall moisture is favorable for germination and there is sufficient snow cover to insure against winter-kill from extreme cold temperatures. When winter wheat is damaged by winter-kill it is usually reseeded to spring wheat.

Lincoln County farmers have experimented with many varieties to get higher yields. In 1956 common-white wheat and white-club wheat shared almost equally nine-tenths of the crop. Idaed and Marfed were the most popular common-white wheat varieties. Elmar and Elgin were the leading white-club varieties.

Elmar accounted for one-third of the wheat crop in Lincoln County in 1956. The county also produces considerable hard-red winter wheat of the Turkey and Rio varieties. These are grown on the drylands receiving less than 16 inches of annual rainfall and accounted for one-tenth of the crop in 1956.

Table 19.- Varieties of Wheat Grown
in Lincoln County, 1956

Classes and Varieties of Wheat	Production (bushels)	Percent of Total Crop
<u>Common-White Wheats</u>		
Idaed-----	1,571,000	18.7
Marfed-----	1,203,000	14.3
Baart-----	748,000	8.9
Major-Bluestem-----	170,600	2.0
Brevor-----	111,100	1.3
Golden-----	8,600	.1
Federation-----	1,600	Tr.
Burt-----	1,000	Tr.
<u>White-Club Wheats</u>		
Elmar-----	2,782,000	33.1
Elgin-----	948,000	11.3
Hymar-----	17,200	.3
Omar-----	8,700	Tr.
<u>Hard-Red Winter Wheats</u>		
Turkey & Rio-----	835,800	9.9
<u>Hard-Red Spring Wheats</u>		
Henry-----	8,200	.1
Total all classes and varieties	8,414,800	

Source: U.S.D.A., AMS, Agric. Estimates
Division, State of Washington

Barley, Oats and Other Small Grains

Barley is the second leading crop of Lincoln County and production is second among Washington counties. Acreage increased during World War II with a peak of 37,000 acres in 1942. From this it declined to a low of 2,240 acres in 1949. A small shift from wheat to barley occurred in 1950 with 29,000 acres being planted to barley. The Federal Acreage Allotment program on wheat caused a shift to barley, increasing its importance since 1954. By 1958 a new high of 122,200 acres of barley was harvested. Most of the barley crop is sold from the farms where it is grown. Yields are good with the average above 35 bushels per acre in most years. The low yield was 20 bushels per acre in 1940 and the peak was 41 bushels per acre in 1954. Most barley is grown under the summer-fallow, fall-seeded system.

Lincoln County ranks eighth in state oat production. Oats have followed an acreage trend similar to that of barley. A peak acreage was reached in 1942 with 15,600 acres. Oats then went down to 2,040 acres in 1948, but have been on an upward trend since 1951. Oats are a popular feed grain and only a little

over half the crop is generally sold. Yields are fair with a low of 26 bushels per acre in 1940 and a high of 50 bushels per acre in 1943.

Rye is a minor grain crop. There has been a recent upturn in rye acreage. In 1955 there were 1,200 acres of rye harvested. About two-thirds of the rye crop is sold.

Table 20.- Oats and Rye: Acreage, Yield and Production
Lincoln County, 1939-1956

Year	Oats (for grain)			Rye (for grain)		
	Acreage (acres)	Yield (bushels per acre)	Production (bushels)	Acreage (acres)	Yield (bushels per acre)	Production (bushels)
1939	3,390	33.5	113,600	330	11.2	3,700
1940	4,100	26.0	106,600	550	11.6	6,400
1941	7,200	38.0	273,600	770	14.9	11,500
1942	15,600	49.5	772,200	960	20.0	19,200
1943	13,000	50.0	650,000	840	11.0	9,200
1944	5,300	44.0	233,200	440	15.7	6,900
1945	3,100	39.0	120,900	420	15.5	6,500
1946	2,400	48.0	115,200	210	13.8	2,900
1947	2,300	37.0	85,100	300	12.0	3,600
1948	2,040	34.0	69,360	470	15.1	7,100
1949	2,500	33.0	82,500	220	14.6	3,220
1950	9,300	46.0	427,800	700	15.7	11,000
1951	4,100	49.0	201,000	560	9.1	5,100
1952	4,900	48.0	235,200	180	7.5	1,350
1953	6,300	45.0	283,500	220	14.5	3,200
1954	9,500	43.0	408,500	1,100	12.5	13,700
1955	8,500	37.0	314,500	1,200	8.0	9,600
1956	4,200	35.0	147,000	1,100	15.0	16,500

Source: U.S.D.A., AMS, Agric. Estimates Divn.
State of Washington

Alfalfa, Other Hay and Silage

More local feed crops are being grown as a result of increases in beef cattle. Alfalfa in recent years has become the third major crop in Lincoln County. In 1954, alfalfa ranked third with only 2.5 percent of the harvested cropland, or 11,000 acres. Acreage has expanded as new and better varieties of alfalfa were introduced, increasing from a low of 2,900 in 1939 to a peak of 12,900 acres in 1955. Alfalfa acreage doubled between 1952 and 1955. A total of 377 farms cut alfalfa for hay in 1954 with production totaling 22,000 tons. Hay sales are a minor source of income. Only 2,500 tons of alfalfa were sold from a total of 59 farms during 1954.

Clover and timothy grown as a mixture for hay is a minor feed crop. With a low of 700 acres in 1939, clover and timothy acreage increased to a high of about 1,200 acres in 1953. By 1955, this had declined again to 960 acres. In 1954 there were 37 farms growing timothy and clover. Less than one-tenth of the crop was sold.

Small grains cut for hay have been declining. In 1949 there were 9,800 acres of grain hay but by 1954 this had fallen to 5,800 acres. A total of 322 farms in 1954 reported cutting small grains for hay. The acreage decline is related to an increasing preference for alfalfa and other silage crops and to the type of season.

Wild hay was cut on 3,360 acres on 83 farms in 1954 which was an increase of 700 acres over 1949. Almost all wild hay is consumed on the farms where it is grown. In addition to this, about 1,800 acres of other hay (grasses, sweet clover) were cut in 1954. This was about 5 percent of the harvested cropland.

Silage is a newer practice in Lincoln County. During 1954, 10 farms cut alfalfa, grasses, clover or small grains on 330 acres for grass silage. Because of the difficulty of harvesting hay in good condition, silage cutting and storing has been adopted by more farms in recent years.

Table 21.- Clover-Timothy Hay and Alfalfa Hay
Acreage, Yield and Production
Lincoln County, 1939-1955

Year	Clover and Timothy Hay			Alfalfa Hay		
	Acreage (acres)	Yield (tons per acre)	Production (tons)	Acreage (acres)	Yield (tons per acre)	Production (tons)
1939	700	2.0	1,500	2,900	1.6	4,600
1940	640	1.5	1,000	3,500	1.9	6,700
1941	640	2.0	1,300	4,400	1.8	7,900
1942	730	2.3	1,650	4,600	1.9	8,800
1943	800	2.1	1,650	5,200	2.4	12,500
1944	770	2.1	1,630	4,500	1.6	7,200
1945	830	2.0	1,680	4,400	1.8	8,000
1946	850	2.1	1,760	4,500	1.9	8,700
1947	980	2.1	2,080	3,500	1.7	6,100
1948	990	2.3	2,270	4,200	2.0	8,200
1949	1,000	1.8	1,810	5,600	1.6	9,000
1950	1,000	1.0	1,000	5,400	1.4	7,600
1951	900	2.2	1,950	6,300	1.7	10,900
1952	1,000	2.0	2,000	6,400	2.0	12,800
1953	1,180	2.0	2,400	8,100	2.1	16,700
1954	980	2.4	2,330	11,000	2.0	22,000
1955	960	1.4	1,300	12,900	1.4	18,000

Source: U.S.D.A., AMS, Agric. Estimates Division
State of Washington

Fruit Farming

There has been a declining interest in fruit farming in Lincoln County. The period of 1900-1910 was one of experimentation in apples, plums, peaches and pears in northeastern Lincoln County. In 1900 fruit trees of bearing age were at their peak. The depression years, together with climatic handicaps, made fruit farming so unprofitable in Lincoln County that orchard abandonment became almost complete. By 1954 there were only a few local home use orchards

and bearing trees in orchards of 20 trees or more numbered less than one thousand for the entire area. Some orchard land in the Peach district of northern Lincoln County was flooded by Grand Coulee Dam reservoir.

Table 22.- Bearing Fruit Trees
Lincoln County, 1890-1954

Year	Numbers of Bearing Trees					
	Apples	Apricots	Cherries	Peaches	Pears	Prunes & Plums
1890	2,452	22	333	156	296	743
1900	98,220	4,374	8,244	12,837	17,493	33,715
1910	84,402	1,563	7,278	15,190	12,293	10,152
1920	54,737	181	4,489	22,031	7,860	4,182
1930	15,436	415	831	3,857	4,641	1,010
1940	342	28	24	17	58	22
1950	1,009	105	223	58	23	129
1954 1/	314	44	71	421	27	74

1/ 1954 figures are for trees in orchards of 20 trees or more.

Sources: Washington Tree Fruits, Washington Crop and Livestock Reporting Service, USDA and Washington State Dept. of Agric., Cooperating, 1952. U. S. Census of Agriculture.

Vegetables

Lincoln County is not self-sufficient in vegetable production. Only three farms were growing vegetables for sale in 1954 although over 500 of the county's farms grew vegetables for home use. Minor acreages of sweet corn, dry onions, tomatoes, carrots and snap beans are grown in kitchen gardens.

The amount of potatoes grown in the county for home use and sale has been increasing in recent years. There were 50 acres of potatoes harvested on over 250 farms during 1954. Production totaled 4,700 bags. In 1949 only 17 acres and 1,500 bags were harvested.